This notice is a combined synopsis/solicitation for commercial items prepared in accordance with the format in FAR Subpart 12.6, as supplemented with additional information included in this notice. This announcement constitutes the only solicitation; offers are being requested and a written solicitation will not be issued.

This notice is being issued as a Request for Quotations (RFQ) for a Solar Tracking Radiometer System - Quantity 1

# BACKGROUND

NASA Glenn Research Center (GRC) intends to install a radiometer system for solar energy measurements for AM 1.5 Project. It includes continuous, automatic measurements of direct, global and diffuse solar energy. Electrical measurement Instrumentation in not included in this request.

# **SPECIFICATIONS**

The Contractor shall provide a Solar Tracking Radiometer System which shall meet the following specifications:

Item 1: Solar tracking requirements (including active Tracker, Control unit, processor, data storage method, all cables, instruction manual) shall meet the following specifications:

- 1. Alt-Azimuth or Equatorial dual (minimum)drive tracking system
- 2. Pointing accuracy 0.1 degrees or better
- 3. Weather resistant (sealed) access doors
- 4. Control system for year round tracking of the sun at 41° N Latitude  $\pm$  5°
- 5. 120V AC source power
- 6. placement for at least one Direct or normal incidence solar irradiance measurement instrument
- 7. placement for at least two global irradiance Measurement instruments
- 8. placement for solar tracking sun shade, to shade one global irradiance unit from direct sunlight.
- 9. Return to a home position after sunset or mechanical stop, to prevent wiring damage.

# Item 2: Shade Disk Kit

- 1. Attach to above solar tracker to track sun.
- 2. Shade one global irradiance measurement instrument from direct sunlight
- 3. includes ventilation for two global irradiance Measurement instruments
- 4. 6° diameter maximum

Item 3: Black & White Pyranometer for Diffuse Irradiance (Global – Shaded)

1. ISO Second Class/ WHO Moderate Quality

- 2. resolution  $\leq 1 \text{ w/m}^2$
- 3. linearity:  $\pm 1\%$  or better
- 4. Response time (95%): 60 sec or faster
- 5. Spectral Range 0.285-2.8 μm or more
- 6. Cosine response:  $\pm 2\%$  for  $0^{\circ}$  to  $70^{\circ}$  (Zenith Angle)  $\pm 5\%$  for  $70^{\circ} 80^{\circ}$
- 7. Temperature dependence curve (option)
- 8. Calibration certificate traceable to the World Radiation Reference

# Item 4: Precision Spectral Pyranometer for Global Irradiance measurement

- 1. ISO Secondary Standard/ WMO High class
- 2. Response time (95%) 20 sec or faster
- 3. resolution: <1 W/m<sup>2</sup>
- 4. Temperature Dependence: <1% -20C to 40C
- 5. Spectral Range: 0.285-2.8 μm or more
- 6. non-Linearity:  $\pm 0.5\%$  or better
- 7. Cosine response:  $\pm 1\%$  for 0° to 70° (Zenith Angle)  $\pm 3\%$  for 70° 80° or better
- 8. Calibration certificate traceable to the World Radiation Reference

# Item 5: Normal Incidence Pyrheliometer

- 1. ISO First Class Pyroheliometer/ WHO High class
- 2. response time (95%) <20sec
- 3. Resolution <1 W/m2
- 4. non-Linearity:  $\pm 0.5\%$  or better
- 5. Field of view <6°
- 6. Temperature Dependence: <1% -20C to 40C
- 7. calibration certificate traceable to the World Radiation Reference and a temperature compensation curve.

The provisions and clauses in the RFQ are those in effect through FAC 2005-34.

This procurement is a total small business set-aside. See Note 1.

The NAICS Code and the small business size standard for this procurement are 334519 and 500 respectively. The offeror shall state in their offer their size status for this procurement.

All responsible sources may submit an offer which shall be considered by the agency.

Delivery to NASA Glenn Research Center, 21000 Brookpark Road, Cleveland, OH 44135 is required by Wednesday, September 30, 2009. Delivery shall be FOB Destination.

Offers for the items(s) described above are due by Tuesday, August 18, 2009 by 4:30 PM EST, and may be emailed to <a href="mailto:Brunilda.DeJesus@nasa.gov">Brunilda.DeJesus@nasa.gov</a> or mailed to NASA Glenn Research Center, Attn: Brunilda DeJesus, M/S 500-319, 21000 Brookpark Road, Cleveland, OH 44135. Offers and must include, solicitation number, FOB destination to this Center, proposed delivery schedule, discount/payment terms, warranty duration (if applicable), taxpayer identification number (TIN), CAGE Code, DUNS Number, identification of any special commercial terms, and be signed by an authorized company representative.

Offerors shall provide the information required by FAR 52.212-1 (JUNE 2008), Instructions to Offerors-Commercial Items, which is incorporated by reference.

If the end product(s) offered is other than domestic end product(s) as defined in the clause entitled "Buy American Act -- Supplies," the offeror shall so state and shall list the country of origin.

FAR 52.212-4 (FEB 2007), Contract Terms and Conditions-Commercial Items is applicable.

FAR 52.212-5 (FEB 2008), Contract Terms and Conditions Required To Implement Statutes or Executive Orders-Commercial Items is applicable and the following identified clauses are incorporated by reference: 52.219-6, Notice of Total Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644), 52.219-28 Post Award Small Business Program Representation 19.308(d), 52.222-3, Convict Labor (JUN 2003) (E.O. 11755), 52.222-19, Child Labor - Cooperation with Authorities and Remedies (AUG 2007) (E.O. 13126), 52.222-21, Prohibition of Segregated Facilities (FEB 1999), 52.222-26, Equal Opportunity (MAR 2007) (E.O. 11246), 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793), 52.222-50, Combating Trafficking in Persons (AUG 2007) (Applies to all contracts), 52.225-1, Buy American Act - Supplies (JUN 2003) (41 U.S.C. 10a-10d), 52.232-34, Payment by Electronic Funds Transfer - Other than Central Contractor Registration (MAY 1999) (31 U.S.C. 3332).

The FAR may be obtained via the Internet at URL: <a href="http://www.acquisition.gov/far/index.html">http://www.acquisition.gov/far/index.html</a>

The NFS may be obtained via the Internet at URL: <a href="http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm">http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm</a>

All contractual and technical questions must be in writing (e-mail) to <u>Brunilda.DeJesus@nasa.gov</u> not later than <u>Friday</u>, <u>August 14</u>, 2009 4:00 PM EST. Telephone questions WILL NOT be accepted.

Selection and award will be made to the lowest priced, technically acceptable offeror, with acceptable past performance. Technical acceptability will be determined by review of information submitted by the offeror which must provide a description in sufficient detail to show that the product offered meets the Government's requirement.

# IT IS CRITICAL THAT OFFERORS PROVIDE ADEQUATE DETAIL TO ALLOW EVALUATION OF THEIR OFFER. (SEE FAR 52.212-1(b)).

Offerors must include completed copies of the provision at 52.212-3 (JUNE 2008), Offeror Representations and Certifications - Commercial Items with their offer. These may be obtained via the internet at URL:

http://prod.nais.nasa.gov/eps/Templates/Commercial Greater Than 25K.doc. These representations and certifications will be incorporated by reference in any resultant contract.

An ombudsman has been appointed -- See NASA Specific Note "B".

Prospective offerors shall notify this office of their intent to submit an offer. It is the offeror's responsibility to monitor the following Internet site for the release of solicitation amendments (if any): <a href="http://prod.nais.nasa.gov/cgi-bin/eps/bizops.cgi?gr=D&pin=22">http://prod.nais.nasa.gov/cgi-bin/eps/bizops.cgi?gr=D&pin=22</a>. Potential offerors will be responsible for downloading their own copy of this combination synopsis/solicitation and amendments (if any).